1088 A.C&Y.

# Lima Locomotive Works
# Incorporated

LIMA, OHIO, U. S. A.

## Locomotive Tender

AKRON CANTON & YOUNGSTOWN

## CARD INDEX

Class 8-Wheel 8000 Gal. Dept. Drawing Room

| ORDER No. | SHOP NUMBERS | DATE | DRAUGHTSMAN |
|---|---|---|---|
| C.O. 1088 | 7075-7076 | 4-7-1926 | |
| | | 19 | |
| | | 19 | |
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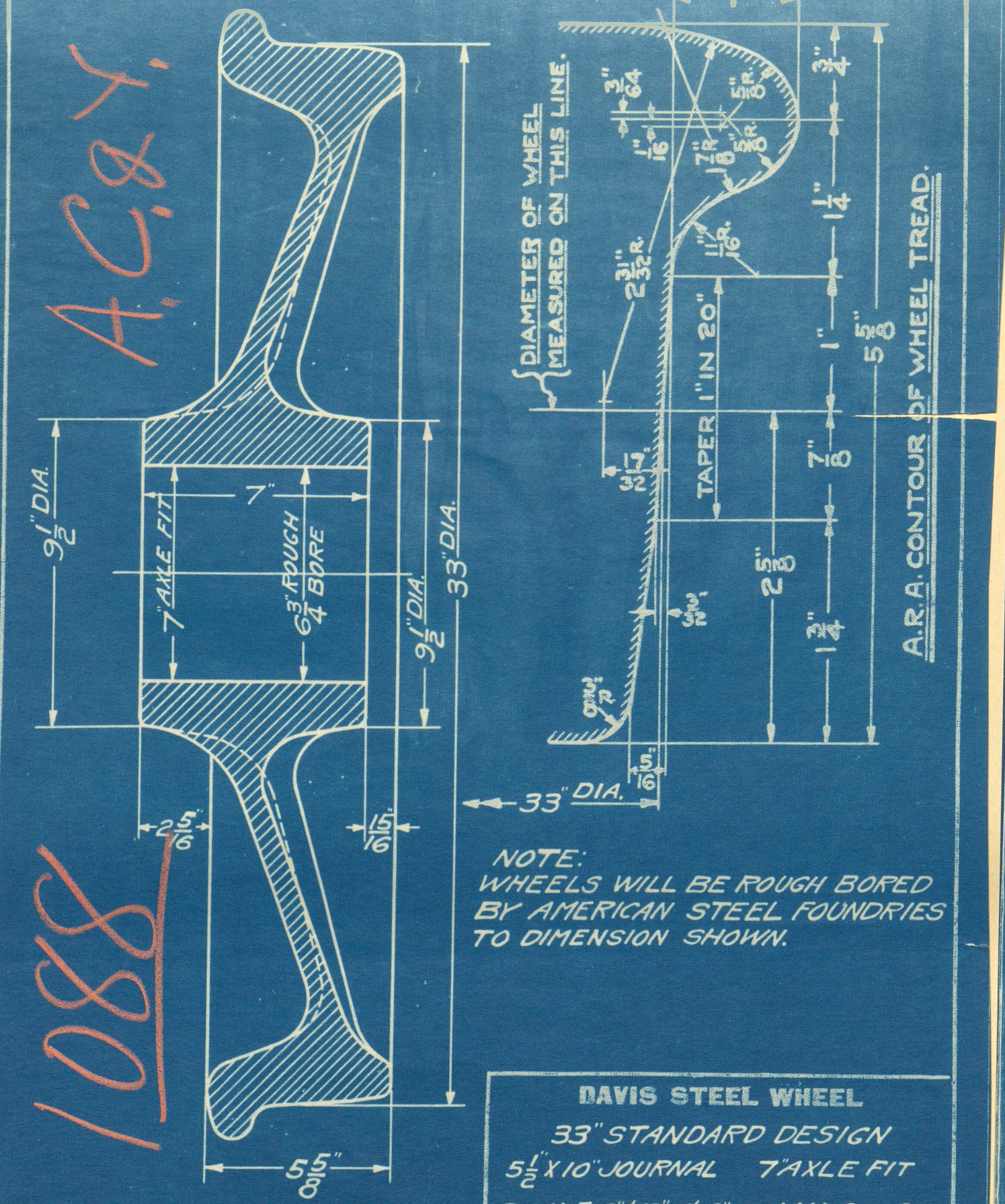
FORM LED 32

1088 AC&Y.

PROPERTY OF **AMERICAN STEEL FOUNDRIES** PAT'D JULY 25, 1916 / AUG. 8, 1916

10949-LETT.

A.C.&Y.



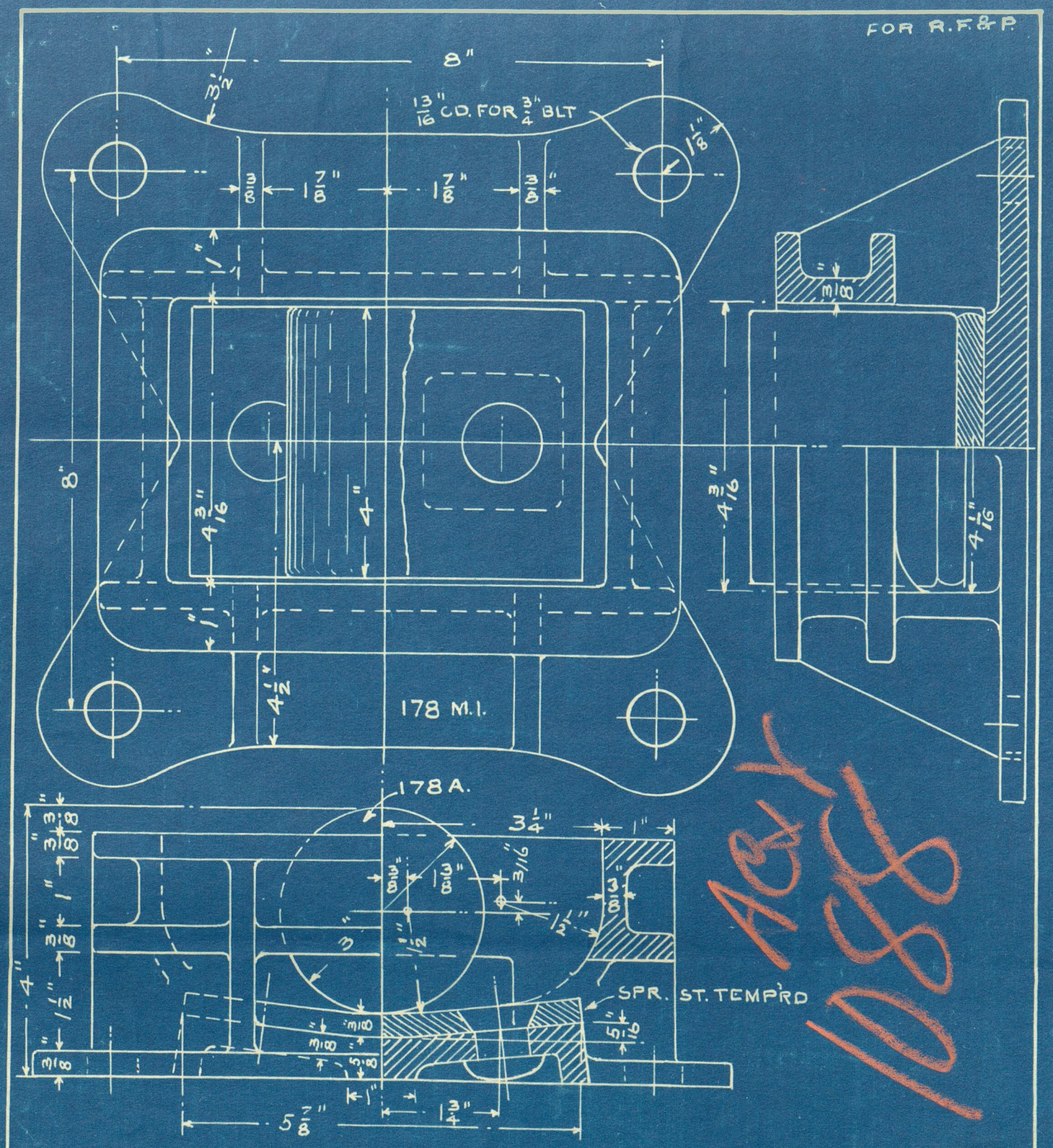

NOTE:
WHEELS WILL BE ROUGH BORED BY AMERICAN STEEL FOUNDRIES TO DIMENSION SHOWN.

1088

| | |
|---|---|
| DAVIS STEEL WHEEL | |
| 33" STANDARD DESIGN | |
| 5½" X 10" JOURNAL | 7" AXLE FIT |
| SCALE: 3"=12"=1'-0" | JAN. 6, 1926. |
| No. 10952 | DETAIL 65252 |
| DR. CAB. TR. CAB. CH. F. H. B. | |

PATT. NO. F-103

FOR R.F.&P.

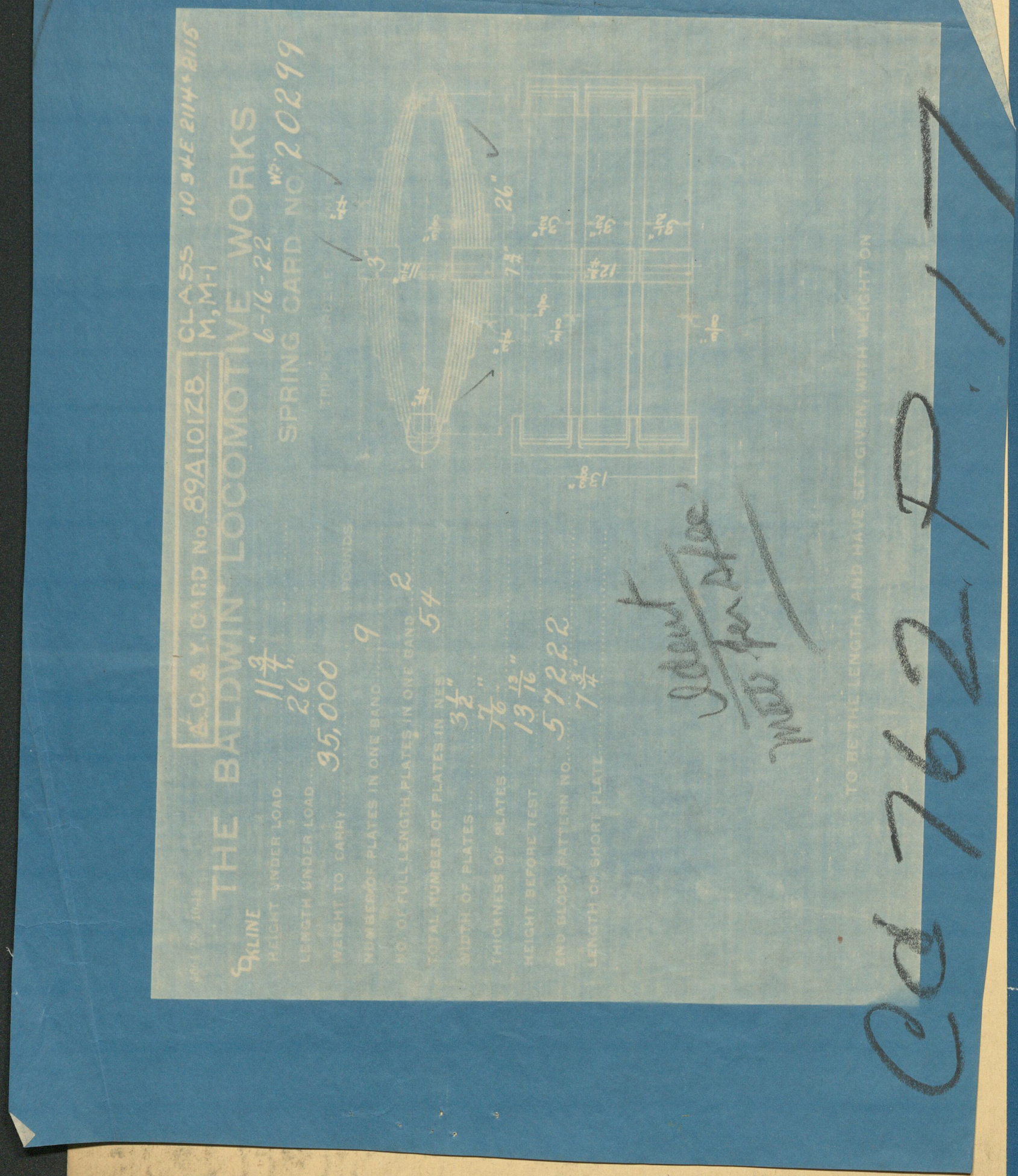



A.C.&Y.

1088

STUCKI SIDE BEARING.
PITTSBURGH, PA.
12-11-11

178.


THE BALDWIN LOCOMOTIVE WORKS
6-16-22
SPRING CARD NO 20299
Order No. 89A10128
CLASS 10 SLE 2114-2115
M, M-1
C & Y
LINE
HEIGHT UNDER LOAD 11 3/4"
LENGTH UNDER LOAD 26
WEIGHT TO CARRY 35,000 POUNDS
NUMBER OF PLATES IN ONE BAND 9
NO. OF FULL LENGTH PLATES IN ONE BAND 2
TOTAL NUMBER OF PLATES IN SET 54
WIDTH OF PLATES 3 1/2"
THICKNESS OF PLATES 7/16"
HEIGHT BEFORE TEST 13 13/16"
END BLOCK PATTERN NO. 57222
LENGTH OF SHORT PLATE 7 3/4"
26"
13 3/8"
12 1/2"
TO BE THE LENGTH AND HAVE SET GIVEN WITH WEIGHT ON

Adjust to Spring Plan No 20299

Cd 7627

# MATERIAL REQUIRED FOR 8000 GALLON TANK

| NO. PCS. | DESCRIPTION | THICK | WIDE | LONG | WEIGHT | MATERIAL |
|---|---|---|---|---|---|---|
| 2 | OUTSIDE | 1/4" | 63" | 338" | 3320 | TANK STEEL |
| 1 | " REAR | 1/4" | 63" | 135" | 665 | " " |
| 1 | BOTTOM | 5/16" | 116" | 121 1/2" | 1450 | " " |
| 1 | " | 5/16" | 116" | 205 1/2" | 2450 | " " |
| 1 | TOP | 5/16" | 116" | 209" | 2500 | " " |
| 1 | BACK SLOPE | 5/16" | 116 1/2" | 170" | 2030 | " " |
| 2 | WATER LEG SIDES | 5/16" | 55" | 66" | 685 | " " |
| 2 | " " TOP | 1/4" | 26" | 36" | 145 | " " |
| 1 | OUTSIDE, FRONT | 1/4" | 18" | 69" | 95 | " " |
| 1 | TANK FUNNEL | 3/16" | 13 1/2" | 108" | 85 | " " |
| 1 | " " LID | 3/16" | 21" | 45" | 55 | " " |
| 1 | REAR COAL BOARD | 1/4" | 38" | 116" | 340 | " " |
| 2 | TANK COLLARS | 1/4" | 27 1/2" | 178" | 765 | " " |
| 2 | DASH PLATES | 1/4" | 34" | 36" | 190 | " " |
| 2 | " " | 1/4" | 34" | 142" | 750 | " " |
| 1 | " " (TO CUT) | 1/4" | 24" | 102" | 190 | " " |
| 2 | " " | 1/4" | 40" | 60" | 375 | " " |
| 12 | " " | 1/4" | 18" | 60" | 1010 | " " |
| 1 | " " | 1/4" | 32" | 40" | 100 | " " |
| 2 | " " | 1/4" | 18" | 32" | 90 | " " |
| 1 | " " | 1/4" | 19 1/2" | 48" | 75 | " " |
| 1 | SHOVEL PLATE | 1/4" | 60" | 84" | 395 | " " |

| | | | | |
|---|---|---|---|---|
| 4 | PCS. TEE IRON | 4" X 3" X 3/8" | 210" LONG | CAR SEC. T-61 |
| 4 | " " " | 4" X 3" X 3/8" | 116" " | " T-61 |
| 4 | " " " | 4" X 3" X 3/8" | 96" " | " T-61 |

300 FT. 2 1/2" X 2 1/2" X 3/8" ANGLE IRON
85 " 1 1/2" X 7/16" BEADING IRON

DRAWN G.J. TRACED C.P.D. CHECKED G.J. APPROVED

MATERIAL ORDER 88-M.O-75

1088



# Index to Classification of Drawings


11 Axles
15 Bolts and Nuts—Studs, Pins and Bushings
17 Boxes, Truck—and Details.
Chafing Plate—See 86.
Clearances—See 98.
Coal Pusher—See 88.
Coupler—See 86.
35 Die Work—Flanging Dies.
Drawgear, Tender—See 86.
Fire Extinguisher—See 64.
49 Gauges, Templates and Jigs.
53 Handrail and Steps—Handles.
54 Headlights and Signal Attachments, Lamps, Electric Wiring, Builders' License and Number Plates.
Keys—See 15.
57 Lagging and Jacket.
Lamps—See 54.
Number Plates—See 54.
59 Oil and Grease Cups—Lubrication.
Oil Burning Attachments—See 82 and 88.
61 Painting, Lettering and Numbering—Photos.
62 Pilot and Snow Plows.
63 Pipe Fittings and Clamps—Air, Steam, Water and Lubricator Pipe Fittings.
64 Piping Arrangements.
66 Plugs, Handholes and Washout.
71 Running Boards and Brackets.
73 Sand Box, Sanders and Rigging.
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76 Springs.
80 Stoker and Details.
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Steps—See 53.
82 Tank Valves—Oil and Water, Handles, Well, Goose Neck, Strainer, Hose and Cooler Cocks.
84 Tender Brake—Truck and Frame Brake.
85 Tender Frames—Front and Back Bumpers.
86 Tender Drawgear—Buffer, Chafing Plate, Coupler and Rigging, Drawhead F. and B.
87 Tender Deck, Tool Box, Water Cooler.
88 Tender Tank—Water and Oil, Coal Gate, Coal Pusher, Filling Hole and Tank Funnel.
89 Tender Truck, Bolster and Guides, Spring Seats and Plank.
90 Tender Water Scoop—Arrangements and Details.
Tires—See 95.
Tool Boxes—See 87.
95 Wheels and Tires.
97 Preliminary Designs and Propositions.
98 Clearances and Wheel Base Diagrams.
99 Miscellaneous.


# ADDITIONS AND CHANGES

ADDITIONS TO BE MADE IN BLACK INK AND CHANGES IN RED INK

| Date | ITEMS | Check | Date | ITEMS | Check |
|---|---|---|---|---|---|
| 4-7-26 | 12 – 30 | EP | | | |
| 4-7-26 | 13 – 13 | " | | | |
| 4-13-26 | 8 – 1 | S | | | |
| 4-15-26 | 9 – 24 | S | | | |
| 4-15-26 | 10 – 47.48.51.54.55.57.58.60.64 | S | | | |
| 4-15-26 | 11 – 1.3.5.35.36.37.38 | S | | | |
| 4-15-26 | 3 – 46.47.81 | S | | | |
| 4-16-26 | 5 – 28.29.30.32.38 | S | | | |
| 4-20-26 | 10 – 20.22.23.24 35.36.39 30.40.41.25.26.27.28 | S | | | |
| 4-21-26 | 5 – 33.34 | S | | | |
| 4-21-26 | 8 – 51.52.54.56.57.60 | S | | | |
| 4-21-26 | 9 – 13.17.18 | S | | | |
| 4-26-26 | 13 – 36.37, | S | | | |
| 4-26-26 | 7 – 50 | S | | | |
| 4-29-26 | 5 – 34 | EP | | | |
| 5-5-26 | 12 – 61.52.53.54.55 – | S | | | |

1088



| Check | Item | TITLE | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 11—AXLES** | | | | | | | | |
| 0 | 1 | Axle | 4 | D-45080 | ord | — | — | — | — | — |
| | 2 | " | — | | | | | | | |
| 0 | 3 | " Marking | | -112-A13 | — | — | — | — | — | — |
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| | 11 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 13 | **GROUP 15—BOLTS AND NUTS** | | | | | | | | |
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| | 24 | | | | | | | | | |
| | 25 | **GROUP 17—BOXES, TRUCK** | | | | | | | | |
| 0 | 26 | Box & Lid | 8 | McCord | 5½"x10 Ord | — | — | — | — | — Ppm 3/24 |
| | 27 | " Lid | — | | | | | | | |
| | 28 | " " Pin | — | | | | | | | |
| | 29 | " " Spring | — | | | | | | | |
| 0 | 30 | " Journal Brass 5½"x10" | 8 | Edna Brass Mfg Co Ord | | — | — | — | — | — |
| 0 | 31 | " " Wedge 5½x10" | 8 | A.R.A Drop Forged | | — | — | — | — | — |
| 0 | 32 | " Dust Guard | 8 | Pressed Steel Car Co 52158 Ord | | — | — | — | — | — |
| | 33 | | | | | | | | | |
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| | 45 | **GROUP 35—DIE WORK** | | | | | | | | |
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| Check | Item | TITLE | | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 49—GAUGES, TEMPLATES & JIGS** | | | | | | | | | |
| | 1 | | | | | | | | | | |
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| | 21 | **GROUP 53—HANDRAIL AND STEPS** | | | | | | | | | |
| | 22 | Handrail | | | | | | | | | |
| | 23 | " | | | | | | | | | |
| | 24 | " Column | | — | | | | | | | |
| | 25 | " " | | — | | | | | | | |
| | 26 | " " | | — | | | | | | | |
| | 27 | " Ball | | — | | | | | | | |
| | 28 | " Flange | | — | | | | | | | |
| | 29 | " " | | — | | | | | | | |
| | 30 | | | | | | | | | | |
| D | 31 | Bumper Handle | | 1 | 863 A66 | — | 53A221 | — | — | — | — |
| | 32 | " " | | — | | | | | | | |
| D | 33 | Tank " Front | R L | 1/1 | 532 D362 | — | 532 D362 | — | — | — | — |
| D | 34 | " " Rear | R L | 1/1 | 532 P208 | — | 532 P208 | — | — | — | — |
| | 35 | " " | | | | | | | | | |
| | 36 | " " | | | | | | | | | |
| | 37 | | | | | | | | | | |
| | 38 | | | | | | | | | | |
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| | 40 | | | | | | | | | | |
| | 41 | | | | | | | | | | |
| | 42 | | | | | | | | | | |
| D | 43 | Steps—Front | | 2 | 532 A 3 | — | — | 53-154 | — | — | — |
| | 44 | Front Step Hanger | | — | | | | | | | |
| | 45 | " " Brace | | — | | | | | | | |
| D | 46 | Steps—Back | R L | 1/1 | 863 A66 | Wood | — | — | — | — | — |
| D | 47 | Back Step Hanger | | 4 | | — | 410 S-210 | — | — | — | — |
| | 48 | " " Brace | | — | | | | | | | |
| | 49 | Tank Step | | — | | | | | | | |
| | 50 | " " | | — | | | | | | | |
| D | 51 | Tank Ladder—Outside | | 1 | 532 B40 | — | 532 B40 | — | — | — | — |
| | 52 | " " —Inside | | — | | | | | | | |
| | 53 | | | | | | | | | | |
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| Check | Item | TITLE | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 54—HEADLIGHTS AND SIGNAL ATTACHMENTS** | | | | | | | | |
| | 1 | Signal Fixtures—Location | | | | | | | | |
| | 2 | Flag Socket | | | | | | | | |
| | 3 | Marker Bracket | — | | | | | | | |
| | 4 | Lamp Bracket | — | | | | | | | |
| | 5 | " Hook | — | | | | | | | |
| | 6 | Pail Hook | — | | | | | | | |
| | 7 | Headlight Bracket | — | | | | | | | |
| 0 | 8 | " Shelf | 1 | 889 A 36 | — | 54 A 20 | — | — | — | — |
| | 9 | | | | | | | | | |
| | 10 | License Plate | — | | | | | | | |
| | 11 | Ownership Plate | 2 | 542 A 388 | Midway Bet Trucks C/Is. Outside Channels | — | — | — | 54-458 | — |
| | 12 | Patent " | — | | | | | | | |
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| | 21 | **GROUP 57—LAGGING AND JACKET** | | | | | | | | |
| | 22 | Steam Pipe Lagging | — | | | | | | | |
| | 23 | " " " | — | | | | | | | |
| | 24 | " " Jacket | — | | | | | | | |
| | 25 | | | | | | | | | |
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| | 32 | | | | | | | | | |
| | 33 | **GROUP 59—OIL AND GREASE CUPS** | | | | | | | | |
| | 34 | Truck Oil Cup | — | | | | | | | |
| | 35 | " " " Cap | — | | | | | | | |
| | 36 | | | | | | | | | |
| | 37 | Stoker Oil Cup | — | | | | | | | |
| | 38 | " " " Cap | — | | | | | | | |
| | 39 | | | | | | | | | |
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| | 48 | | | | | | | | | |
| | 49 | **GROUP 61—PA'TING, LET'RING & NUM'G** | | | | | | | | |
| | 50 | Tender Lettering | | | | | | | | |
| | 51 | | | | | | | | | |
| | 52 | | | | | | | | | |
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1088



| Check | Item | TITLE | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 62—PILOT AND SNOW PLOW** | | | | | | | | |
| | 1 | Pilot | — | | | | | | | |
| | 2 | " Band | — | | | | | | | |
| | 3 | " Brace | — | | | | | | | |
| | 4 | " " | — | | | | | | | |
| | 5 | " Bottom Plate | — | | | | | | | |
| | 6 | " Bracket | — | | | | | | | |
| | 7 | " Corner Iron | — | | | | | | | |
| | 8 | " Knee | — | | | | | | | |
| | 9 | | | | | | | | | |
| | 10 | | | | | | | | | |
| | 11 | | | | | | | | | |
| | 12 | | | | | | | | | |
| | 13 | Snow Plow | | | | | | | | |
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| | 21 | **GROUP 63—PIPE FITTINGS AND CLAMPS** | — | | | | | | | |
| | 22 | Box Cooler Hose | — | | | | | | | |
| | 23 | " " Fitting | — | | | | | | | |
| | 24 | " " " Nut | — | | | | | | | |
| | 25 | " " " Swivel | — | | | | | | | |
| | 26 | | | | | | | | | |
| | 27 | | | | | | | | | |
| D | 28 | Pipe Clamp 3/4" | 2 | 632 B 348 | — | — | — | 63-737 | — | — |
| D | 29 | " " 1¼" | 3 | 632 F 348 | — | — | — | 63-563 | — | — |
| D | 30 | " " 1¼" | 1 | 863 A 66 | — | 63 B 98 | — | — | — | — |
| | 31 | " " | — | | | | | | | |
| D | 32 | " Hanger | 1 | 863 A 66 | — | 63 A 111 | — | — | — | — |
| D | 33 | " " 3/4" Str. Air | 2 | 632 D 501 | — | 63 A 158 | — | — | — | — |
| D | 34 | " " 1¼" Trainline | 3 | 632 C 501 | — | 63 A 157 | — | — | — | — |
| | 35 | " " | — | | | | | | | |
| | 36 | " Manifold Air Brake | — | | | | | | | |
| | 37 | " " | — | | | | | | | |
| D | 38 | " " Support | 1 | 642 A 131 | 3"x5"x½" Angle | — | — | — | — | |
| | 39 | " " " | — | | | | | | | |
| | 40 | | | | | | | | | |
| | 41 | Water Joint Support | — | | | | | | | |
| | 42 | | | | | | | | | |
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| | 50 | **GROUP 64—PIPING ARRANGEMENTS** | | | | | | | | |
| | 51 | Piping Arrangement | — | | | | | | | |
| | 52 | | | | | | | | | |
| | 53 | Sprinkler Piping | — | | | | | | | |
| | 54 | | | | | | | | | |
| | 55 | Steam Heat Piping | — | | | | | | | |
| | 56 | | | | | | | | | |
| | 57 | Coal Pusher Piping | — | | | | | | | |
| | 58 | | | | | | | | | |
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1088

X



| Check | Item | TITLE | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 66—PLUGS, HANDHOLES AND WASHOUTS** | | | | | | | | |
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| | 8 | | | | | | | | | |
| | 9 | **GROUP 71—RUN'G BOARDS & BRACK'TS** | | | | | | | | |
| | 10 | Running Board | — | | | | | | | |
| | 11 | " " | — | | | | | | | |
| | 12 | " " Bracket | — | | | | | | | |
| | 13 | " " " | — | | | | | | | |
| | 14 | " " " | — | | | | | | | |
| | 15 | " " " | — | | | | | | | |
| | 16 | | | | | | | | | |
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| | 18 | | | | | | | | | |
| | 19 | | | | | | | | | |
| | 20 | | | | | | | | | |
| | 21 | **GROUP 73—SAND BOX AND RIGGING** | | | | | | | | |
| | 22 | Sand Box | — | | | | | | | |
| | 23 | " " Brace | — | | | | | | | |
| | 24 | " " Handle | — | | | | | | | |
| | 25 | | | | | | | | | |
| | 26 | | | | | | | | | |
| | 27 | | | | | | | | | |
| | 28 | | | | | | | | | |
| | 29 | **GROUP 76—SPRINGS** | | | | | | | | |
| Q | 30 | Truck Spring | 4 | 762 | P 17 Ord | | | | | |
| | 31 | " " | — | | | | | | | |
| | 32 | " " Clip | — | | | | | | | |
| | 33 | " " End Block | — | | | | | | | |
| | 34 | Buffer Spring | — | | | | | | | |
| | 35 | Coupler Spring | — | | | | | | | |
| | 36 | Draw Spring | — | | | | | | | |
| | 37 | " " | — | | | | | | | |
| | 38 | Water Scoop Spring | — | | | | | | | |
| | 39 | " " " | — | | | | | | | |
| | 40 | Brake Beam Leveling Spring | — | | | | | | | |
| | 41 | | | | | | | | | |
| | 42 | | | | | | | | | |
| | 43 | | | | | | | | | |
| | 44 | | | | | | | | | |
| | 45 | | | | | | | | | |
| | 46 | **GROUP 80—STOKER AND DETAILS** | — | | | | | | | |
| | 47 | | | | | | | | | |
| | 48 | | | | | | | | | |
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| | | (Group 80 Continued) | | | | | | | | |

| Check | Item | TITLE | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 80—STOKER AND DETAILS (Cont.)** | | | | | | | | |
| | 1 | | | | | | | | | |
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| | 42 | | | | | | | | | |
| | 43 | | | | | | | | | |
| | 44 | **GROUP 82—TANK VALVES AND COCKS** | | | | | | | | |
| | 45 | Tank Valve | 2 | D-47001 Line 1 | — | — | — | — | 82-73 | — |
| | 46 | " " Body | 2 | " | — | — | 82-194 | — | — | — |
| | 47 | " " Seat | — | | | | | | | |
| | 48 | " " Shaft | — | | | | | | | |
| | 49 | " " Stuffing Box | 2 | D-47006 | — | — | — | — | 82-298 | — |
| | 50 | " " Rod | 2 | " | — | 82A43 | — | — | — | — |
| | 51 | " " Lift | 2 | " | — | — | 82-300 | — | — | — |
| | 52 | " " Handle | 2 | " | — | — | 82-91 | — | — | — |
| | 53 | " " Gland | 2 | " | — | — | — | — | 82-299 | |
| | 54 | " " Goose Neck | 2 | 822A70 | — | — | — | — | 82-197 | — |
| | 55 | " " Nut | — | | | | | | | |
| | 56 | " " Sleeve | — | | | | | | | |
| | 57 | " " Hose Nut | — | | | | | | | |
| | 58 | " " " Swivel | — | | | | | | | |
| | 59 | Tank Valve Flange Bottom | 2 | D-47001 Line 1 | — | — | 82-193 | — | — | — |
| | 60 | " " " Side | 2 | " | — | — | 82-192 | — | — | — |
| | 61 | " " Strainer | 2 | " | #18 B.W.G Sheet Copper, Perforated | — | — | — | — | — |

(Group 82 Continued)

| Check | Item | TITLE | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 82—TANK VAL. AND COCKS (Cont.)** | | | | | | | | |
| D | 1 | Tank Well | ~~2~~ 1 | D-47001 Line 1 | — | — | 82-292 | — | — | — |
| | 2 | " " Plug | — | | | | | | | |
| | 3 | " Syphon | — | | | | | | | |
| | 4 | " " Pipe Support | — | | | | | | | |
| | 5 | " " Brace | — | | | | | | | |
| | 6 | | | | | | | | | |
| | 7 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 9 | Oil Tank Plug | — | | | | | | | |
| | 10 | " " Valve | — | | | | | | | |
| | 11 | " " " Seat | — | | | | | | | |
| | 12 | " " " Rod | — | | | | | | | |
| | 13 | " " " Arm | — | | | | | | | |
| | 14 | " " " Gland | — | | | | | | | |
| | 15 | " " " | — | | | | | | | |
| | 16 | " " " Nut | — | | | | | | | |
| | 17 | " " " Sleeve | — | | | | | | | |
| | 18 | " " " Drain | — | | | | | | | |
| | 19 | " " " " Seat | — | | | | | | | |
| | 20 | " " " Stuffing Box | — | | | | | | | |
| | 21 | " " " " " Nut | — | | | | | | | |
| | 22 | " " " " " Gland | — | | | | | | | |
| | 23 | " " " Rod End | — | | | | | | | |
| | 24 | " " Measuring Rod | — | | | | | | | |
| | 25 | Oil Tank Cock | — | | | | | | | |
| | 26 | " " " Cap | — | | | | | | | |
| | 27 | " " " Plug | — | | | | | | | |
| | 28 | " " " Nut | — | | | | | | | |
| | 29 | " " " Washer | — | | | | | | | |
| | 30 | " " " Handle | — | | | | | | | |
| | 31 | Tank Cock | — | | | | | | | |
| | 32 | " " Plug | — | | | | | | | |
| | 33 | " " Nut | — | | | | | | | |
| | 34 | " " Washer | — | | | | | | | |
| | 35 | " " Handle | — | | | | | | | |
| | 36 | " " Flange | — | | | | | | | |
| | 37 | " " Rod | — | | | | | | | |
| | 38 | " " Stuffing Box | — | | | | | | | |
| | 39 | " " " " Gland | — | | | | | | | |
| | 40 | " " " " Nut | — | | | | | | | |
| | 41 | Box Cooler Valve | — | | | | | | | |
| | 42 | " " " Cap | — | | | | | | | |
| | 43 | " " " Stem | — | | | | | | | |
| | 44 | " " " Gland | — | | | | | | | |
| | 45 | " " " Nut | — | | | | | | | |
| | 46 | " " " Handle | — | | | | | | | |
| | 47 | " " " Coupling Nut | — | | | | | | | |
| | 48 | " " " Swivel | — | | | | | | | |
| | 49 | | | | | | | | | |
| | 50 | **GROUP 84—TENDER BRAKE** | | | | | | | | |
| D | 51 | Frame Body Brake Arrangement | | 858 A 26 | — | — | — | — | — | — |
| D | 52 | Body Brake Lever | 2 | 842 L 26 | — | 842 L 26 | — | — | — | — |
| | 53 | " " " | — | | | | | | | |
| D | 54 | " " " Support | 3 | 858 A 26 | — | 84 D 4 | — | — | — | — |
| | 55 | " " " " | — | | | | | | | |
| D | 56 | " " Connecting Rod RL | 1 | D-4861 Gr 8 | — | D-4861 Gr 8 | — | — | — | — |
| D | 57 | " " Slack Adjuster Supt | 1 | — | — | To Suit Adjuster | — | — | — | — |
| | 58 | " " Equalizer | — | | | | | | | |
| | 59 | " " Fulcrum | — | | | | | | | |
| D | 60 | " " Rod Cyl | 1 | 858 A 26 | — | 84 B 6 | — | — | — | — |
| | 61 | " " Clevis | — | | | | | | | |

(Group 84 Continued)

| Check | Item | TITLE | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 84—TENDER BRAKE (Cont.)** | | | | | | | | |
| | 1 | Body Brake Sheave | — | | | | | | | |
| | 2 | " " " Support | — | | | | | | | |
| | 3 | " " Shaft | — | | | | | | | |
| | 4 | " " " Cap | — | | | | | | | |
| | 5 | " " " Hanger | — | | | | | | | |
| | 6 | " " " Step | — | | | | | | | |
| | 7 | " " " Wheel | — | | | | | | | |
| | 8 | " " " Handle | — | | | | | | | |
| | 9 | " " " Pawl | — | | | | | | | |
| | 10 | " " " " Plate | — | | | | | | | |
| | 11 | " " " Ratchet | — | | | | | | | |
| | 12 | " " " Weight | — | | | | | | | |
| C | 13 | " " Cylinder | 1 | 858 A 26 | 12"x12" ord | — | — | — | — | — |
| | 14 | " " " Head | — | | | | | | | |
| | 15 | " " " " | — | | | | | | | |
| | 16 | " " " Support | — | | | | | | | |
| | 17 | " " Pins Cyl Rod | 2 | 842 F 38 | — | — | — | — | — | |
| | 18 | " " " Conn. x Cyl | 6 | 842 K 38 | — | — | — | — | — | — |
| | 19 | " " " cyl | — | | | | | | | |
| | 20 | " " " | — | | | | | | | |
| | 21 | Tender Brake Piston | — | | | | | | | |
| | 22 | " " " Follower | — | | | | | | | |
| | 23 | " " " Ring | — | | | | | | | |
| | 24 | " " " Rod | 1 | 842 H 36 | — | 842 H 36 | — | — | — | — |
| | 25 | Brake Reservoir Hanger | — | | | | | | | |
| | 26 | " " Strap | — | | | | | | | |
| | 27 | Hand Brake Arrangement | — | | | | | | | |
| | 28 | " " Rod | — | | | | | | | |
| | 29 | | | | | | | | | |
| | 30 | | | | | | | | | |
| | 31 | | | | | | | | | |
| | 32 | | | | | | | | | |
| | 33 | | | | | | | | | |
| | 34 | | | | | | | | | |
| | 35 | Truck Brake | | 893 A 29 | | | | | | |
| | 36 | " " Beam | R 2 | 11 | Huntoon #669A | — | — | — | — | Approved 7/24 |
| | 37 | " " | — | | | | | | | |
| | 38 | " " | — | | | | | | | |
| | 39 | " " " Support | 8 | 842 J 2 | — | 842 J 2 | — | — | — | — |
| | 40 | " " " Safety Chain | 8 | 893 A 29 | — | 84 A ~~77~~ 114 | — | — | — | — |
| | 41 | " " " " " Bar | 4 | " | — | 4505-212 | — | — | — | — |
| | 42 | " " " Leveling Eyebolt | — | | | | | | | |
| | 43 | " " Head | — | | | | | | | |
| | 44 | " " Shoe | 8 | Am Brake Shoe & Fdry. or ♦ | — | — | — | — | — | — |
| | 45 | " " " Key | 8 | — | — | — | — | — | — | — |
| | 46 | " " | — | | | | | | | |
| | 47 | " " Lever | 2 | 842 T 39 | — | 842 T 39 | — | — | — | — |
| | 48 | " " " Guide | 2 | 893 A 29 | — | 84 A 111 | — | — | — | — |
| | 49 | " " Dead Lever | 2 | 842 T 39 | — | 842 T 39 | — | — | — | — |
| | 50 | " " " " Anchor | 2 | 893 A 29 | — | 84 A 110 | — | — | — | — |
| | 51 | " " " " " Lug | — | | | | | | | |
| | 52 | " " Lever Rod | 2 | 842 L 14 | — | 842 L 14 | — | — | — | — |
| | 53 | " " " " | — | | | | | | | |
| | 54 | " " Pins Brake Beam Support | 8 | 893 A 29 | — | 84 A 42 | — | — | — | — |
| | 55 | " " " Bottom Rod | 4 | 842 K 38 | — | — | — | — | — | — |
| | 56 | " " " Fulcrum | 4 | 842 D 37 | — | — | — | — | — | — |
| | 57 | " " " Dead Lever | 2 | 842 X 37 | — | — | — | — | — | — |
| | 58 | | | | | | | | | |
| | 59 | | | | | | | | | |
| | 60 | | | | | | | | | |
| | 61 | | | | | | | | | |

1088 +



| Check | Item | TITLE | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 85—TENDER FRAME** | | | | | | | | |
| O | 1 | Frame | 1 | 858 A 26 | C.S.Co Print #16843A Ord | | — | — | — | — |
| | 2 | " Center Sill | — | | | | | | | |
| | 3 | " Side Sill | — | | | | | | | |
| | 4 | " End Sill | — | | | | | | | |
| | 5 | " Corner Angle | — | | | | | | | |
| | 6 | " " Bracket | — | | | | | | | |
| | 7 | " " Knee | — | | | | | | | |
| | 8 | " Brace | — | | | | | | | |
| | 9 | " " | — | | | | | | | |
| | 10 | " " | — | | | | | | | |
| | 11 | " Filling | — | | | | | | | |
| | 12 | " " | — | | | | | | | |
| | 13 | " | — | | | | | | | |
| | 14 | " Bolster | — | | | | | | | |
| | 15 | " " Angle | — | | | | | | | |
| | 16 | " " Plate | — | | | | | | | |
| | 17 | " " Truss Bar | — | | | | | | | |
| | 18 | " " " Brace | — | | | | | | | |
| | 19 | " " " Plate | — | | | | | | | |
| | 20 | " " | — | | | | | | | |
| | 21 | " " Tie Plate | — | | | | | | | |
| O | 22 | " Center Plate | 2 | 858 A 26 | Commonwealth Ord | | — | — | — | — |
| O | 23 | " Side Bearing Wearing Plate | 4 | " | 3/8"x4"x12" Plate | | — | — | — | — |
| O | 24 | " " " Shims | 4 | " | 4"x12" Thickness to Provide 3/16" Clearance each Side | | — | — | — | — |
| O | 25 | Push Pole | 1 | 852 C 50 | Fir. Ord | | — | — | — | — |
| O | 26 | " " Collars | 2 | " | Made of 5" Pipe | | — | — | — | — |
| O | 27 | " " ~~Pocket~~ Hangers | 2 | " | — | 85 A 44 | — | — | — | — |
| O | 28 | " " Support | 2 | 858 A 26 | — | 85 A 21 | — | — | — | — |
| | 29 | " " Stop | | | | | | | | |
| O | 30 | Wrecking Frog Brackets | 1 | 853 B 10 | — | — | — | 85-105 | — | — |
| | 31 | Switch Rope Hooks | — | | | | | | | |
| | 32 | Check Chain | — | | | | | | | |
| | 33 | " " Pocket | — | | | | | | | |
| | 34 | " " Hook | — | | | | | | | |
| O | 35 | Tender Floor | 1 | 858 A 26 | 1¾"x10" Ord | | — | — | — | — |
| O | 36 | " " Edge | 1 | " | 1¾"x1¾"x¼" Angle | | — | — | — | — |
| | 37 | Bumper—Front | — | | | | | | | |
| | 38 | " —Back | — | | | | | | | |
| O | 39 | Tender Floor Anchor | 40 | 852 A 38 | — | — | 85-22 | — | — | — |
| O | 40 | Wrecking Frog Brackets Rt | 4 | 853 B 10 | — | — | — | 85-103 | — | — |
| O | 41 | " " " Liners | 4 | " | 1½x1⅞"x7 | — | — | 85-104 | — | — |
| | 42 | | | | | | | | | |
| | 43 | | | | | | | | | |
| | 44 | | | | | | | | | |
| | 45 | | | | | | | | | |
| | 46 | | | | | | | | | |
| O | 47 | **GROUP 86—TENDER DRAWGEAR** | 1 | 863 A 66 | Bradford #B85-B | — | — | — | — | Ofmond 3/24 |
| O | 48 | Coupler | 1 | " | N.M.&St Cstg Co #15418C | — | — | — | — | 3/25 |
| | 49 | " Pocket | — | | | | | | | |
| | 50 | " Followers | — | | | | | | | |
| O | 51 | " Yoke | 1 | 863 A 66 | Cast Steel O.H.S. #288 Ord | — | — | — | — | Ofmond 3/24 |
| | 52 | " " Filler | — | | | | | | | |
| | 53 | " Follower Guide | — | | | | | | | |
| O | 54 | " Carry Iron | 1 | 863 A 66 | — | 1½"x5"x29 | — | — | — | — |
| O | 55 | " Chain | 1 | — | Natl. Mall Steel Cstg Co Ord | | — | — | — | — |
| | 56 | " " Clevis | — | | | | | | | |
| O | 57 | Drawbar Pin | 1 | 862 E 29 | — | 862 E 29 | — | — | — | — |
| O | 58 | " " Support | 1 | 862 A 38 | — | 862 A 38 | — | — | — | — |
| | 59 | Safety Chain Pin | — | | | | | | | |
| O | 60 | Draft Gear ~~Check Casting~~ Key Cotter | 1 | 863 A 66 | — | 86 A 6 | — | — | — | — |
| O | 61 | " " Key | 1 | " | — | 86 D 3 | — | — | — | — |

(Group 86 Continued)

| Check | Item | TITLE | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 86—TENDER DRAWGEAR (Cont.)** | | | | | | | | |
| | 1 | Draft Gear Carrier | 1 | 863 A 66 | 3/4" x 14 1/2" x 24 Plate | — | — | — | — | — |
| | 2 | Drawhead Brace | — | | | | | | | |
| | 3 | Uncoupling Shaft | 1 | 863 A 66 | Brackets Applied Before Bending | 86 A 100 | — | — | — | — |
| | 4 | " " Arm | — | | | | | | | |
| | 5 | " " Bracket | 3 | 37 Z A 213 | — | — | 37-385 | — | — | — |
| | 6 | " " " | — | | | | | | | |
| | 7 | " " Handle | — | | | | | | | |
| | 8 | " " Cap | — | | | | | | | |
| | 9 | | | | | | | | | |
| | 10 | Draw Casting—Front | — | | | | | | | |
| | 11 | " " —Back | — | | | | | | | |
| | 12 | Safety Chain | — | | | | | | | |
| | 13 | " " Clevis | — | | | | | | | |
| | 14 | " " Staple | — | | | | | | | |
| | 15 | " " Washer | — | | | | | | | |
| | 16 | | | | | | | | | |
| | 17 | Chafing Casting | 1 | | Frictional Radial, Spring Type Ord | — | — | — | — | — |
| | 18 | " Iron | — | | | | | | | |
| | 19 | Spring Buffer | — | | | | | | | |
| | 20 | " " Case | — | | | | | | | |
| | 21 | | | | | | | | | |
| | 22 | | | | | | | | | |
| | 23 | | | | | | | | | |
| | 24 | | | | | | | | | |
| | 25 | | | | | | | | | |
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| | 28 | | | | | | | | | |
| ✓ | 29 | | | | | | | | | |
| ✓ | 30 | | | | | | | | | |
| | 31 | | | | | | | | | |
| | 32 | | | | | | | | | |
| | 33 | | | | | | | | | |
| | 34 | **GROUP 87—TENDER DECK AND TOOL BOX** | | | | | | | | |
| | 35 | Tender Deck | 1 | 889 A 36 | Wood x Plate | — | — | — | — | — |
| | 36 | " " Shovel Plate | 1 | " | 1/4" Plate Ord | — | — | — | — | — |
| | 37 | " " Support, Outside R L | 1 1 | " | 5/8" Plate | — | — | — | — | — |
| | 38 | " " " Inside R L | 1 1 | " | 1/4" Plate | — | — | — | — | — |
| | 39 | | | | | | | | | |
| ✓ | 40 | | | | | | | | | |
| | 41 | Tool Box | | | | | | | | |
| | 42 | " " | | | | | | | | |
| | 43 | " " Handle | | | | | | | | |
| | 44 | " " " | | | | | | | | |
| | 45 | " " Brace | | | | | | | | |
| | 46 | " " " | | | | | | | | |
| | 47 | " | | | | | | | | |
| | 48 | " Closet Hinge | | | | | | | | |
| | 49 | " " " Lug | | | | | | | | |
| | 50 | | | | | | | | | |
| | 51 | | | | | | | | | |
| | 52 | | | | | | | | | |
| | 53 | Water Cooler | — | | | | | | | |
| | 54 | " " Base | — | | | | | | | |
| | 55 | " " Top | — | | | | | | | |
| | 56 | " " Lid | — | | | | | | | |
| | 57 | " " Casing | — | | | | | | | |
| | 58 | " " Cock | — | | | | | | | |
| | 59 | | | | | | | | | |
| | 60 | | | | | | | | | |
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| Check | Item | TITLE | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 88—TENDER TANK** | | | | | | | | |
| 0 | 1 | Tank—Water | 1 | 889 A 36 | 800 Gall. | Bend Angles Tees | — | — | — | — |
| 0 | 2 | " Material Bill 88M075 | | | | | | | | |
| | 3 | " Brace | — | | | | | | | |
| | 4 | " Knee | — | | | | | | | |
| | 5 | " Lifter Iron | — | | | | | | | |
| 0 | 6 | " Drain Pipe | 2 | 882 E 4 | — | — | 88-100 | — | — | — |
| 0 | 7 | " " " Flange Gaskets | 2 | 882 A 9 | 1/8" Rubber | — | — | — | — | — |
| 0 | 8 | " " " — " | 2 | 882 A 10 | 1/8" Rubber | — | — | — | — | — |
| | 9 | " Fuel Rack | | | | | | | | |
| 0 | 10 | " Tool Hook | 1 | | — | 470 S-230 | — | — | — | — |
| 0 | 11 | " Lug | 8 | 882 A 3 | — | 470 S-07 | — | — | — | — |
| | 12 | " " | — | | | | | | | |
| 0 | 13 | " Funnel | 1 | 882 B 69 | 3/16 Plate Ord | — | — | — | — | — |
| 0 | 14 | " " Lid | 1 | " | 3/16 " Ord | — | — | — | — | — |
| 0 | 15 | " " Hinge | 2 | 882 B 68 | — | — | — | 88-94 | — | ✓ |
| 0 | 16 | " " " Lug | 2 | 882 B 40 | — | — | — | 88-40 | — | ✓ |
| 0 | 17 | " " Handle | 1 | 882 A 61 | — | — | — | 88-8 | — | ✓ |
| | 18 | " " Screen | | | | | | | | |
| 0 | 19 | " Coal Gate | 1 | 882 A 77 | 1/4" Plate Matl. Ord | — | — | — | — | — |
| 0 | 20 | Coal Gate Angle | 2 | " | 3"x3"x 3/8 | — | — | — | — | — |
| 0 | 21 | " " Catch | 2 | " | — | 88 B 47 | — | — | — | — |
| 0 | 22 | " " Latch Eyebolt | 2 | " | — | 88 D 67 | — | — | — | — |
| 0 | 23 | " " Hinge | 8 | " | 12" Extra Heavy T" | — | — | — | — | — |
| | 24 | " " " Lug | — | | | | | | | |
| | 25 | " " Chain | — | | | | | | | |
| 0 | 26 | " " Eyebolt Slide Bolts | 1-Set | 882 A 77 | — | — | — | — | — | — |
| 0 | 27 | " " Slide Clamp | 2 | " | — | 88 A 8 | — | — | — | — |
| | 28 | " " Catch Bracket | — | | | | | | | |
| | 29 | " " Handle | — | | | | | | | |
| 8 | 30 | Tool Closet Eyebolts | 2 | 889 A 36 | — | 470S-213 | — | — | — | — |
| | 31 | Tank Cut Out for Stoker | — | | | | | | | |
| | 32 | | | | | | | | | |
| | 33 | | | | | | | | | |
| | 34 | Tank—Oil | — | | | | | | | |
| | 35 | " Material Bill | — | | | | | | | |
| | 36 | " Brace | — | | | | | | | |
| | 37 | " Lifter Iron | — | | | | | | | |
| | 38 | " Lug | — | | | | | | | |
| | 39 | " " | — | | | | | | | |
| | 40 | " Funnel | — | | | | | | | |
| | 41 | " " Lid | — | | | | | | | |
| | 42 | " " Hinge | — | | | | | | | |
| | 43 | " " " Lug | — | | | | | | | |
| | 44 | " " Screw | — | | | | | | | |
| | 45 | " " Handle | — | | | | | | | |
| | 46 | " " Gasket | — | | | | | | | |
| | 47 | " " Screen | — | | | | | | | |
| | 48 | | | | | | | | | |
| | 49 | | | | | | | | | |
| | 50 | Coal Pusher | — | | | | | | | |
| 8 | 51 | " Gate Latch | 2 | 882 A 77 | — | 470S 09 | — | — | — | — |
| 8 | 52 | " " " | 2 | " | — | 88 A 123 | — | — | — | — |
| 8 | 53 | " " " Stop | 4 | " | — | 470S 327 | — | — | — | — |
| 8 | 54 | " " " Guide | 4 | " | — | 470S 10 88A-198 | — | — | — | — |
| 8 | 55 | " " " Bolt | 4 | " | Bolt "Z" | — | — | — | — | — |
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| Check | Item | TITLE | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 89—TENDER TRUCK** | | | | | | | | |
| 0 | 1 | Truck | 2 | 893 A 29 | 5½" x 10" Journals | — | — | — | — | — |
| | 2 | " Arch Bar | — | | | | | | | |
| | 3 | " Truss Bar | — | | | | | | | |
| 0 | 4 | " Tie Bar | 8 | 893 A 29 | ¾" x 6" x 21½" | — | — | — | — | — |
| | 5 | " Columns | — | | | | | | | |
| | 6 | " " | — | | | | | | | |
| 0 | 7 | " Bolster | 2 | 893 A 29 | Pitts. Sth. Fdrys Co. Print 21258 | — | — | — | — | — |
| | 8 | " " Guide | — | | | | | | | |
| | 9 | " " Bar | — | | | | | | | |
| | 10 | " " Cap | — | | | | | | | |
| | 11 | " " Truss Rod | — | | | | | | | |
| | 12 | " " " " Washer | — | | | | | | | |
| 0 | 13 | " Center Plate | 2 | 892 A 93 | — | — | — | 89-219 | — | — |
| 0 | 14 | " King Bolt | 2 | 892 F 3 | — | 892 F 3 | — | — | — | — |
| 0 | 15 | " " " Keys | 2 | 892 A 61 | — | 892 A 61 | — | — | — | — |
| 0 | 16 | " Spring Plank | 2 | 892 A 91 | 15" — 40# Channel, Ord | | — | — | — | — |
| 0 | 17 | " " Seat—Top | — | | | | | | | |
| 0 | 18 | " " " —Bottom | 1-Set | 892 A 91 | ¼" Plates | — | — | — | — | — |
| | 19 | " " Hanger | — | | | | | | | |
| | 20 | " " " | — | | | | | | | |
| | 21 | " " " Gib | — | | | | | | | |
| 0 | 22 | " Side Bearing | 4 | 893 A 29 | Stucki #178 Ord | — | — | — | — | — Appr 3/19 |
| | 23 | " " " Block | — | | | | | | | |
| 0 | 24 | " Frame | 4 | 893 A 29 | Andrews. Pitts. Sth. Fdry, Print 20654 | — | — | — | — | Appr 3/18 |
| | 25 | " " Brace | — | | | | | | | |
| | 26 | " " Crosstie | — | | | | | | | |
| | 27 | " Pedestal | — | | | | | | | |
| | 28 | " " | — | | | | | | | |
| | 29 | " " Cap | — | | | | | | | |
| | 30 | " " " Tie | — | | | | | | | |
| | 31 | " Equalizer | — | | | | | | | |
| | 32 | " " | — | | | | | | | |
| | 33 | " Swing Frame | — | | | | | | | |
| | 34 | " " Link | — | | | | | | | |
| | 35 | " " Pins | — | | | | | | | |
| 0 | 36 | " Check Chain | 2 | 892 L 69 | Front of Front Truck only | 892 L 69 | — | — | — | — |
| 0 | 37 | " " " ~~Bolt~~ | 6 | 892 K 69 | R. of Front Truck & R of Back " | 892 K 69 | — | — | — | — |
| | 38 | " " " Clevis | — | | | | | | | |
| | 39 | " " " Pocket | — | | | | | | | |
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| Check | Item | TITLE | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 90—TENDER WATER SCOOP** | | | | | | | | |
| | 1 | Water Scoop | 7 | | | | | | | |
| | 2 | Scoop Cylinder | | | | | | | | |
| | 3 | " " Head | | | | | | | | |
| | 4 | " " " | | | | | | | | |
| | 5 | " " Gland | | | | | | | | |
| | 6 | " " Support | 7 | | | | | | | |
| | 7 | " " " | | | | | | | | |
| | 8 | " Piston | | | | | | | | |
| | 9 | " " Follower | | | | | | | | |
| | 10 | " " Rings | 7 | | | | | | | |
| | 11 | " " Rod | | | | | | | | |
| | 12 | " " " Jaws | | | | | | | | |
| | 13 | " " " Extension Links | | | | | | | | |
| | 14 | " Inside Pipe | 7 | | | | | | | |
| | 15 | " Outside Pipe | | | | | | | | |
| | 16 | " Air Pipe Casing | | | | | | | | |
| | 17 | " Neck | | | | | | | | |
| | 18 | " Splash Hood | 7 | | | | | | | |
| | 19 | " Dipper | | | | | | | | |
| | 20 | " " Link | | | | | | | | |
| | 21 | " " Lifter | | | | | | | | |
| | 22 | " " Nose | 7 | | | | | | | |
| | 23 | " " Shield | | | | | | | | |
| | 24 | " " " Brackets | | | | | | | | |
| | 25 | " Shaft | | | | | | | | |
| | 26 | " " Fulcrum | 7 | | | | | | | |
| | 27 | " Bell Crank | | | | | | | | |
| | 28 | " Arm | | | | | | | | |
| | 29 | " Spring Cap | | | | | | | | |
| | 30 | " " Rod | 7 | | | | | | | |
| | 31 | " " Seat | | | | | | | | |
| | 32 | " " " Support | | | | | | | | |
| | 33 | " Jaws | | | | | | | | |
| | 34 | " Rods | 7 | | | | | | | |
| | 35 | " Lever | | | | | | | | |
| | 36 | " Link | | | | | | | | |
| | 37 | " Bracket | | | | | | | | |
| | 38 | " Brace | 7 | | | | | | | |
| | 39 | " Pipe Hanger | | | | | | | | |
| | 40 | " Joint Piece | | | | | | | | |
| | 41 | " " " Trunion Cap | | | | | | | | |
| | 42 | " " " " " | 7 | | | | | | | |
| | 43 | " " " Lifting Links | | | | | | | | |
| | 44 | " " " " " | | | | | | | | |
| | 45 | " Delivery Pipe Hanger | | | | | | | | |
| | 46 | " " " " Clamp | — | | | | | | | |
| | 47 | " " " " Clips | — | | | | | | | |
| | 48 | " | | | | | | | | |
| | 49 | " | | | | | | | | |
| | 50 | " Operating Valve | — | | | | | | | |
| | 51 | " " " Cap | — | | | | | | | |
| | 52 | " " " Plug | — | | | | | | | |
| | 53 | " " " Nut | — | | | | | | | |
| | 54 | " " " Handle | — | | | | | | | |
| | 55 | " " " Quadrant | — | | | | | | | |
| | 56 | " " " Spring | — | | | | | | | |
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| Check | Item | TITLE | No. Pcs. | DRAWING Card No. | DRAWING Construct'n Notes | FORGINGS Sketch No. | CASTINGS—PATTERN NUMBERS Cast Iron | Cast Steel | Brass | Mal. Iron |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **GROUP 95—WHEELS AND TIRES** | | | | | | | | |
| g | 1 | Truck Wheel 33" | 8 | Davis Cast Steel Ord | | — | — | — | — | — |
| g | 2 | Wheel Pressed on Axle (Tons) | | 65 Tons Min 85 Tons Max | | — | — | — | — | — |
| | 3 | Wheel Center | — | | | | | | | |
| | 4 | " Tire | — | | | | | | | |
| | 5 | Tire Retaining Ring | — | | | | | | | |
| | 6 | Wheel Numbers | — | | | | | | | |
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| | 26 | **GROUP 99—MISCELLANEOUS** | | | | | | | | |
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1088



| Check | Item | TITLE | No. Pcs. | DRAWING | | FORGINGS | CASTINGS—PATTERN NUMBERS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Card No. | Construct'n Notes | Sketch No. | Cast Iron | Cast Steel | Brass | Mal. Iron |

JWG
Pelesen

LIMA LOCOMOTIVE WORKS INC.

ORDER 1088

AKRON CANTON AND YOUNGSTOWN RAILROAD.

Memorandum of Interview at Lima, March 1, 1926, in connection with 8 wheel switching locomotives, Mr. Crowe and Mr. Crandall, representing A. C. & Y. Railroad.

- - - - - - -

ITEM

1. Referring to item E of Special Notice, Page 2 , Railroad Co.'s spec. If part to Lima Loco. Wks' dwg. is interchangeable with Railroad Co.'s drawings, L. L. W. dwg. will be acceptable.

2. L. L. W. will submit prints of specialties to Railroad Company for approval.

3. Total weight of engine in working order, not to exceed 220,000 lbs.

4. Inside dimensions of firebox at grate will be 66-1/4 x 102-1/8.

5. Full set of reproduced tracings to be furnished covering engine and tender. These reproduced tracings to be manufactured by Litho Print Company of New York.

6. Correct drawing of boiler sections is Railroad drawing 13-D-6439. Drawing 13-K-6439 can be ignored.

7. Boiler braces to L. L. W. drawings are acceptable. This includes backhead tees.

8. Firebox ring will be one piece cast steel.

9. Ohio low water alarm will be applied

10. Studs in boiler will be 12 U. S. threads per inch, taper 3/4 in 12.

11. Seam at top of smokebox to be welded, not riveted.

12. Advise credit if Superior soot blower is omitted. (Later decided to omit soot blo

13. Threads on staybolts, not to be removed between sheets.

14. Huron arch tube plugs with 2-7/8" dia. daylight opening with round bushing to be used. Washout plugs will have 2" daylight opening with round bushings.

15. In providing spreaders with Franklin grease collars, the driving boxes must interchange with boxes on present engine.

Memorandum of Interview- March 1, 1926
A. C. & Y. - Order 1088

ITEM

16. No. 54 air strainer to be located between pumps.

17. Cab to have two sliding ventilators, otherwise as dwg. 224-A-2

18. Water gauge to be Nathan type L-3.

19. Blow off cock to be flanged type.

20. Main crank pin to have 1/2" radius at inside of back end of main rod fit.

21. General dimensions of crosshead shoes to be same as U.S.R.A. engines.

22. Cylinders to be to L. L. W. dwg. for U.S.R.A. 0-8-0 type engine with bushings 3/4" thick and cylinder wall 1-1/2" thick. Cylinders to be provided with Katz extended exhaust connection. Boss for future application of feed water heater to be left blank. Apply plug in opening for relief valve and tap plug for 1" globe valve, using short nipple in plug.

23. Couplers on engine and tender to be National Malleable Casting Co.'s. Pocket at front of engine to be National Malleable Casting Co.'s.

24. Mr. Crewe will advise relative to the bore of the exhaust nozzle. Usd L. L. W. pattern 44-2-64 for nozzle.

25. Hand rail columns on left side of boiler to have removable caps.

26. Hand rail at rear of tank to extend full length of bumper. Vertical grab iron provided at rear corners of the tank.

27. Road numbers of engine to appear on front of headlight bracket. No number plate in center of smokebox. Figures will be cast aluminum, L.L.W. dwg. 543-A-38- Road numbers 37 and 38.

28. Engines will be Railroad Company's class L-1.

29. Ohio #10 lifting injectors placed outside of cab will be used.

30. Provide Edna injector/check stand, Railroad Co.'s standard at top of boiler and Ohio combined stop and check valve.

31. Steel bronze nuts to be used at the following connections: Injector delivery pipe; injector steam pipe; injector feed water connection; strainer connection to feed pipe and hose connection to strainer.; delivery pipe to check.

32. Baker valve gear having appr ox. 6-3/4" travel, will be used

33. Paints and varnishes to be Sherwin-Williams.

34. Lubricator will be Edna 8 pint capacity, force feed, with all but two feeds blank. Railroad Co. will furnish drawing showing application of force feed lubricator. Provide Nathan two feed, 2 pint hydrostatic lubricator for air pump, one feed to be blank.

ITEM

35. Guide and valve stem crosshead oil cups to be Edna.

36. Reverse gear to be Alco, type E.

37. Reverse shaft bearing to be L. L. W. standard.

38. Railroad Co. will furnish drawing of grease plug in rods.

39. Sand box top and base to be welded to sandbox sides. Sanders will be King type, single.

40. Case hardened bushings to be provided in spring hangers and equalizers. No dowel in pin.

41. Steam gauge to be 6-3/4" brass case, Ashton.

42. Safety valves- Ashton, MM #28, 1 muffled and two open. Taps in boiler for application of safety valves to be as shown on Railroad Company's boiler drawing.

43. Steam turret to be of brass.

44. Stud circle in cylinder neck and steam pipe flanges to be increased for better clearance.

45. Superheater units, manufactured by L. L. Wks. Damper cylinder and header only purchased from Superheater Company. Remainder of superheater manufactured by L. L. Wks.

46. Hand brake on tender not required. Braking power on tender to be based on 70% of light weight of tender.

47. Brake beams to be 18000 lbs. capacity. ✓

48. Tank to be 60"high and sufficient length to get 8000 gallon, 10 ton capacity. ✓

49. Drawbar pins 5" diameter.

50. Chafing plates at rear of tender not required. ✓

51. Ladder at rear of tank to have loop over top of tank. ✓

52. Tank drawing to be sent to Railroad Company for their approval. ✓

53. Tender axles to be smooth forged between journal fits, and to be unannealed open hearth steel. ✓

54. Railroad Company will furnish drawings of rerailer supports. ✓

55. Provide hooks for carrying push pole. ✓

Memorandum of Interview, March 1, 1926.
A. C. & Y. - ORDER 1088.

ITEM

56. Tender truck side frames and bolsters to Railroad Company's dwgs. purchased in open market.

57. Tender journal boxes are specified McCord, but can be purchased in open market if McCord delivery is unsatisfactory.

58. Throttle and lever to be Chambers standard back head type.

59. Dry pipe to be lap welded steel.

60. All driving tires to be flanged with shoulder on outside of tire, section C, Railroad dwg. 95-B-14181.

61. Boiler plate hub liners on driving wheels to be rolled, into driving wheel center.

62. Engine to pass maximum curve of 20 degrees.

63. Railroad Co. will furnish drawing showing method of shutting off steam between dome and whistle.

64. Jacket to be #20 painted steel on boiler, and #16 painted steel on cylinders.

65. Brake shoes, engine and tender to be A.B.S. & Fdry. Company.

66. Reproduced tracings will be furnished direct from our tracings without any blocking out.

H. W. Snyder
S. S. Lawson

SSL/GS

Three copies to A. C. & Y.R.R.
Three copies to Mr. Snyder.
One copy to Mr. Woodard.
One copy to Mr. Dixon.

E. D. 257.

LIMA LOCOMOTIVE WORKS, INCORPORATED ORDER No. 1088

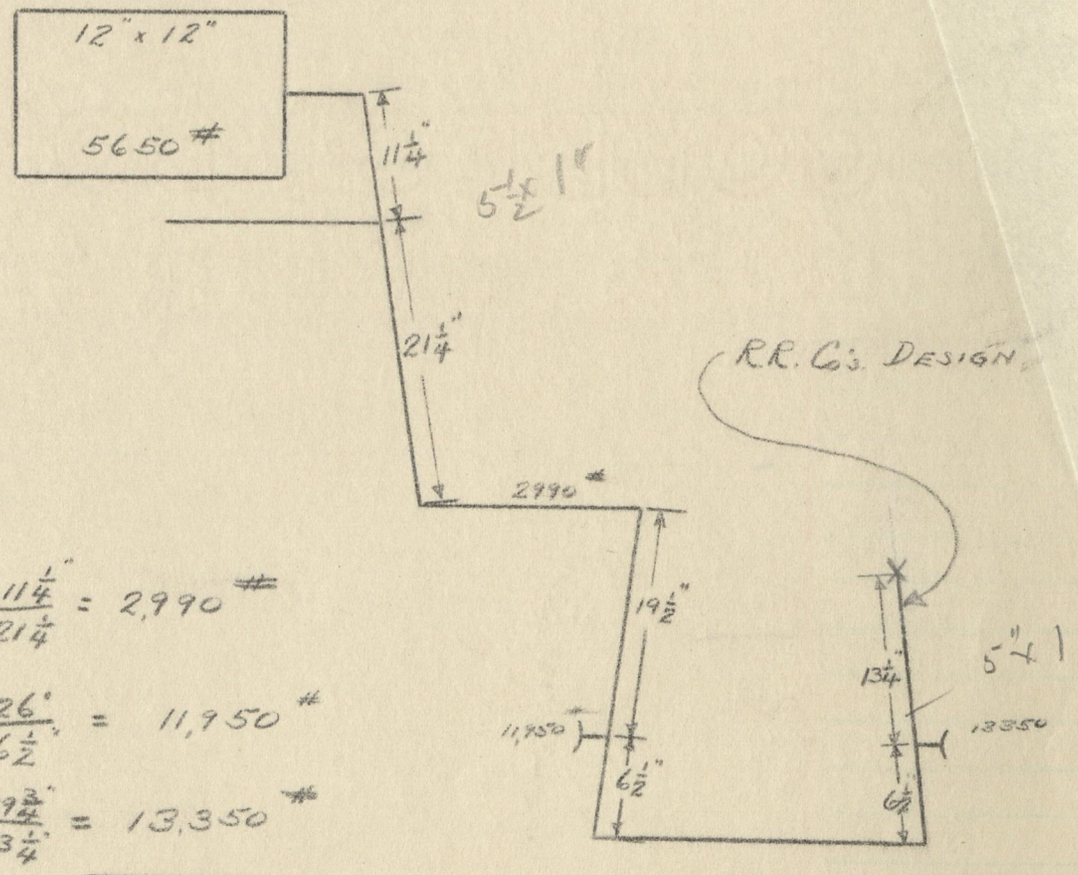
ENGINEERING DEPARTMENT

CALCULATIONS

MADE BY R.S. 3/29/26 CHECKED BY AJT 3/29/26 ELEVATION MAN CRT

TENDER BRAKE WORK

ESTIMATED LIGHT WT = 61,900 #




$5650^{\#} \times \frac{11\frac{1}{4}"}{21\frac{1}{4}"} = 2,990^{\#}$

$2,990^{\#} \times \frac{26"}{6\frac{1}{2}"} = 11,950^{\#}$

$2990 \times \frac{19\frac{1}{2}"}{6\frac{1}{2}"} \times \frac{19\frac{3}{4}"}{13\frac{1}{4}"} = 13,350^{\#}$

$25,300 \times 2 = 50,600^{\#}$ TOTAL BRAKING POWER

$\frac{50,600}{61,900} = 81.6\ \%$ (BRAKING POWER % OF LIGHT WEIGHT

E. D. 257.

76

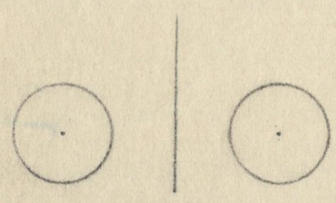
LIMA LOCOMOTIVE WORKS, INCORPORATED ORDER No. 1088

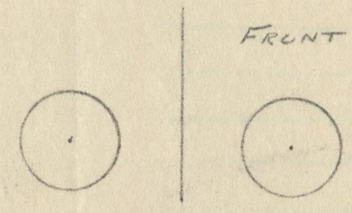
ENGINEERING DEPARTMENT

CALCULATIONS

MADE BY R.S. 3/3/26 CHECKED BY D.T.S. 3/4/26 ELEVATION MAN CRA

TENDER SPRINGS
ELLIPTIC




74,600
- 5600
69,000

$\frac{69,000}{2}$ = 34,500 # LOAD ON ONE SPRING NEST

SPRINGS

9 PLATES $3\frac{1}{2}' \times \frac{7}{16}''$ - 3 EACH NEST 26" CTS.

393 x $3\frac{1}{2}$ x 9 x 3 = 37,100 # CAPACITY ONE NEST

CAPACITY IS $7\frac{1}{2}$ % OVER LOAD

Height of spring at load = $11\frac{3}{4}$"
" " " light = $13\frac{1}{2}$"

# Material Specifications